CLAIMS

What is claimed is:

5   1.   A bi-directional log splitter, comprising:

a trailerable wheeled frame having a main beam along its longitudinal axis with an upper surface for supporting a log thereon;

a pair of bi-directional equal force hydraulic log splitting cylinders horizontally oriented on said frame, wherein the extension force is substantially equal to the

10   retraction force of each of the cylinders;

at least two stationary splitting wedges permanently secured to the upper surface of the wheeled frame, said splitting wedges having the wedges facing toward each other and being oriented horizontally for applying pressure to logs that are urged thereagainst and being arranged to split logs; and

15   a bi-directional horizontally moveable hydraulic ram attached to the pair of hydraulic cylinders for movement in both directions between the at least two splitting wedges, and depending on which direction the cylinders are directed, said ram advances the logs toward each of and between the splitting wedges by the extension and retraction of the attached hydraulic cylinders in order to effect log splitting in both directions.

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2.   The splitter of claim 1, further comprising a trailer hitch for releasably connecting and attaching to a towing vehicle.

3.   The splitter of claim 1, wherein the at least two splitting wedges include

25   splitting wedges having raked angles of between about 5° and about 25° to more efficiently split the wood.

4.   The splitter of claim 1, wherein each of the at least two splitting wedges is about 12 inches tall.

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5.   The splitter of claim 1, further comprising at least a pair of guide rods for directing the pair of hydraulic cylinders in the proper orientation.

6.   The splitter of claim 1, further comprising at least a pair of guide tubes for
5   providing support to the pair of hydraulic cylinders and strengthening the hydraulic action during the operation of log splitting.

7.   The splitter of claim 1, further comprising a skid plate for supporting the logs thereon.
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